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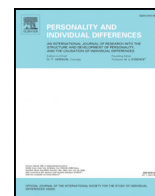
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Individual attributes as predictors of protective and risk components of resilience under continuing terror attacks: A longitudinal study

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ABSTRACT

Objectives: The present study is a longitudinal research which uses baseline individual attributes for predicting three measures of individual resilience in two consecutive periods of terror attacks.
Design and setting: Regressions determined the impact of personality attributes at time 1 on measures of resilience at times 2 and 3, beyond the effects of each measure of resilience at time 1. Three path analyses examined the impact of baseline attributes on resilience of civilians throughout a wave of terror.
Participants: The 561 participating civilian adults constituted 55% of a representative internet sample of the Israeli Jewish population, who responded to the research questionnaire three times: before and throughout this wave of terror. Participants were lower middle-class males and females, with some academic education, representing the Israeli political range.
Measurements: Resilience supporting personality attributes (sense of coherence, social support, and perceived community resilience), and resilience suppressing factors (exposure to terror, and sense of danger) predicted resilience which was measured by strength to vulnerability ratio (IND-SVR).
Results: The investigated attributes predicted protective and risk factors of post-terror resilience.
Conclusion: This longitudinal study corroborates the theoretical position that resilience constitutes an integration of individual protective processes and risk elements, both of which are required for understanding adaptation following adversities. Furthermore, it supports the contention that individual resilience is contingent upon, and predicted by personality attributes and attitudes.

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1. Protective and risk factors determine resilience

Resilience is generally defined in terms of an ability to "bounce back" after an affliction, to a pre-adversity level of functioning. Masten (2015, p.187) claims that resilience is "the potential of manifested capacity of a dynamic system to adapt successfully to disturbances that threaten the function, survival, or development of the system", whereas Bonanno (2004) regards resilience as a stable trajectory of healthy functioning after a highly adverse event. Most recent definitions of resilience have characterized this construct as protective elements which enhance individual strength, rather than as risk factors.

A different perspective submits that the definition of resilience should concurrently include protective factors and risk factors. In previous studies we have argued that resilience should be defined as *the balance of individual strength (protective factors) and vulnerability (risk factors) following an adversity or a traumatic event* (Eshel, Kimhi, Lahad, & Leykin, 2016; Kimhi & Eshel, 2015). This definition posits that post-adversity strengths which successfully counter distress symptoms result in resilience which may lead to positive adaptation, whereas a level of risk factors which is higher than post-adversity strengths indicates poor resilience. Determining resilience by individual strengths, without simultaneously considering risk factors, such as worries, concerns, or fears, may result in inadequate and biased assessments of this resilience.

This analysis submits that resilient individuals may show successful coping, regardless of the presence of distressing emotions (Luthar, 1991). It echoes the theoretical arguments of Charles (2010) and Masten (2011) that resilience represents an integration of strength and vulnerability, and understanding adaptation to adversities requires a concurrent examination of protective processes and risk factors. Israeli studies have demonstrated (Eshel, 2016; Eshel & Kimhi, 2015, 2016a) that the individual post-adversity strength to vulnerability ratio (SVR), which represents a balance of protective factors and risk factors, constitutes a valid index of resilience. We therefore maintain that the contribution of individual characteristics to predicting the risk factor component of resilience will be as strong as their contribution to

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predicting the protective factors and the SVR index (Eshel, Kimhi, Lahad, Leykin & Goroshit, submitted).

1.1. Protective factors

Postwar quality of life has been measured by a scale which compares perceived postwar to prewar functioning (Kimhi & Eshel, 2009). A large-scale Israeli study has indicated that perceived posttraumatic recovery of adolescents was positively correlated with sense of coherence (SOC), and economic condition, and negatively linked to exposure to war adversities (Kimhi, Eshel, Zysberg, Hantman, & Enosh, 2010). In more peaceful times, this scale takes the form of "My Life Today" which pertains to one's current health, family life, or work (Eshel et al., 2016).

1.2. Risk factors

Terror attacks may give rise to distress symptoms such as depression, anxiety, grief, or PTSD (Dyregrov, Gjestad, & Raundalen, 2002). Distress symptoms of a general civilian population will be employed as an indicator of post-adversity risk factors which are involved in attaining individual resilience.

2. Resilience supporting and suppressing attributes

Research has shown that personality attributes may impact adjustment to adversities (Eshel et al., 2016; Stroebe & Stroebe, 1987). Several studies have found that IND-SVR was positively predicted by SOC, or well-being, and negatively predicted by sense of danger (e.g., Eshel & Kimhi, 2015, 2016a). The present study employs a longitudinal design to validate three indices of resilience: My Life Today, post-adversity distress symptoms, and IND-SVR, against three resilience enhancing attributes (SOC, social support, and perceived community resilience), and two resilience suppressing elements (previous exposure to terror, and sense of danger).

2.1. Sense of coherence (SOC)

Antonovsky's (1987) salutogenic model explores the origins of individual health after adversity. Sense of coherence (SOC), which is a central element of this theory, is described as a psychologically based stress resistant resource. SOC has been positively correlated with both perceived health and well-being (Ebert, Tucker, & Roth, 2002) and postwar recovery (Kimhi, Eshel, Zysberg, & Hantman, 2010), and negatively linked to a wide range of adversities, such as depression (Amirkhan & Greaves, 2003).

2.2. Social support

Social support is associated with better resilience to distress, and is regarded as an essential contributor to physical (Uchino, 2006) and to psychological health (Kim, Sherman, & Taylor, 2008).

2.3. Community resilience

Community resilience is defined as "the community's ability to withstand crises or disruptions" (Leykin, Lahad, Cohen, Goldberg, & Aharonson-Daniel, 2013). More resilient communities show a high ability to prevail, cope with highly stressful situations, and recover more quickly than less resilient communities (Kimhi, Goroshit, & Eshel, 2013; Parham, 2011). We hypothesize that SOC, social support, and perceived community resilience will positively predict level of resilience.

2.4. Level of exposure

Exposure to terror attacks detrimentally affects resilience (Kimhi & Shamai, 2004). More intense exposure has been associated with a higher level of distress symptoms (e.g., Besser, Zeigler-Hill, Weinberg, Pincus, & Neria, 2015).

2.5. Sense of danger

Sense of danger strongly influences reaction to adversities (Scott, Poulin, & Cohen Silver, 2012). A low sense of danger has been associated with a higher postwar recovery, life satisfaction, and fewer distress symptoms of adolescents (Kimhi, Eshel, Zysberg, & Hantman, 2010; Kimhi, Eshel, Zysberg, Hantman, & Enosh, 2010). We hypothesize that exposure to adversity and sense of danger will negatively predict level of resilience.

2.6. The present study

Two major issues are investigated. The first is the assumption that beneficial and detrimental individual characteristics and experiences, measured before an adversity, will consistently predict the level of individual resilience throughout this adversity. The second issue pertains to the role of risk factors as essential components of resilience. We assume that these individual attributes will predict the risk factors component of resilience, throughout continuing adversity, to the same extent that they will predict the protective factors of resilience.

The unique characteristic of this study is its prospective nature. Most of the research on post-adversity resilience is based on cross-sectional designs in which the direction of causality may be debatable. Prospective data are essential for determining which variables can be regarded as predictors of level of resilience following an adversity, and which of them reflect changes that were induced by this adversity. Longitudinal designs are essential for understanding resilience by comparing baseline or pre-adversity functioning with post-adversity resilient outcomes. Cross-sectional data indicate that the resilience of the Israeli public has been retained, and perhaps even enhanced in the face of terror attacks (Kimhi & Eshel, 2016, submitted). However, this issue as well as the contribution of personality attributes to resilience under different levels of stressful conditions, can be determined only by longitudinal research.

The investigated issues are examined, therefore, by longitudinal research which is based on three repeated measures administered over a period of ten months. They took place before and throughout a recent wave of terror attacks in Israel, which continued from early September 2015 to June 2016. The 2149 attacks documented in this period included shooting, stabbings, car ramming, riots, 'Molotov cocktail' attacks, rocket bombardments, arson, stone throwing, assaults and sabotage, almost all directed at Israeli Jewish civilians. The first measurement was done in a relatively peaceful period, as a baseline for possible future negative events (July 2015, with three non-fatal casualties, and no deaths due to terror attacks); the second measurement took place at the height of the wave, one month after the beginning of the attacks (October 2015, during which the terror toll was 11 deaths and 80 non-fatal casualties); the third measurement was administered six months later, when a temporary decline in the terror attacks was observed (April 2016, 18 non-fatal terror casualties) (Israeli Security Agency - Terror Data and Trends, 2015). The present theoretical model is presented in Fig. 1.

The following hypotheses are examined:

H1. Resilience-enhancing characteristics (SOC, social support, and perceived community resilience), measured at a relatively peaceful time, will positively predict IND-SVR and its My Life Today component throughout ongoing terror attacks, and will negatively predict its distress symptoms component.
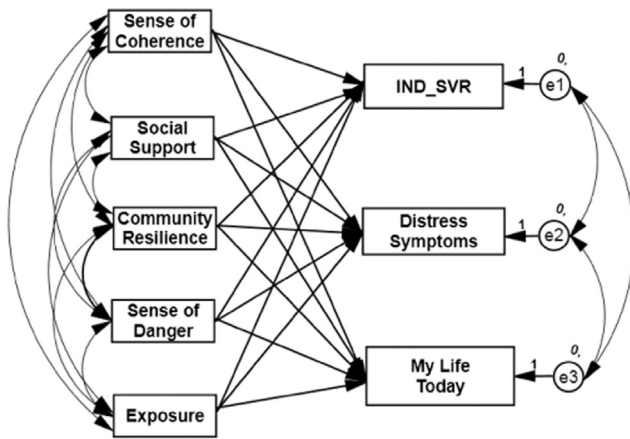
Fig. 1. Theoretical model of five predictors (time 1 and time 2) of 3 predicted measures of resilience (time 3 and time 2).

H2. Resilience-suppressing characteristics (exposure to terror and sense of danger), measured at a relatively peaceful time, will negatively predict IND-SVR and My Life Today scores throughout these terror attacks, and will positively predict distress symptoms score.

3. Methods

3.1. Data collection and sampling

The initial representative national sample included 1022 Jewish Israeli adults. The second repeated measures were obtained from 740 (72%) of them. The final sample of this study included 561 participants (76% of the second sample) who responded to the questionnaire for the third time, and provided all the requested data. Table 1, presenting the participants' demographics, shows that their average age was 44 years with both genders represented evenly; most of them were of lower

Table 1
Distribution of demographic characteristics of the investigated sample ($N = 561$).

Variable	Scale/range	N	%
Age	18–45	315	56.1
	46–65	170	30.3
	66–91	76	13.5
Education[a]	1–2 = elementary to high	55	10.0
	3–4 = para-academic	204	37.0
	5–6 = university	292	53.0
Gender	1 = female	278	49.6
	2 = male	283	50.4
Family income	1 = much below	115	20.5
	2 = below	171	30.5
	3 = average	163	29.1
	4 = above	89	15.9
	5 = much above	23	4.1
Political preference	1 = extreme right	60	10.7
	2 = right	226	40.3
	3 = center	202	36.0
	4 = left	67	11.9
	5 = extreme left	6	1.1
Religiosity	1 = secular	250	44.6
	2 = traditional	198	35.3
	3 = religious	54	11.4
	4 = orthodox	49	8.7
Exposure to terror/war experience time 2	5–10 = low	486	86.6
	11–15 = medium low	59	10.5
	16–20 = medium high	13	2.3
	21–25 = high	3	0.5

[a] 10 participants indicated "other" as their education level.

middle-class with some higher education. They represented the whole range of the Israeli political attitudes.

Recruiting of participants was conducted by an Israeli online survey organization (http://www.ipanel.co.il/), which employs a panel of over 100,000 subjects, who were pre-recruited to respond to surveys, and who signed an informed consent form, and were therefore willing and able to participate. (For the validity of internet questionnaires see Gosling, Vazire, Srivastava, & John, 2004). A stratified sampling method was employed, based on data published by the Israeli Central Bureau of Statistics, which determines quotas by age and gender, and represents every geographic and demographic sector of Israel. The questionnaire was approved by the Ethics Committee of Tel Hai College.

Comparing the demographic characteristics of the 561 respondents with the 461 participants who did not respond to the second or third administration of the questionnaire indicated no significant demographic characteristics differences between them. However, those who responded three times scored significantly higher on IND-SVR, SOC, and lower on exposure to terror than those who dropped out (Table 2).

3.2. Measures

3.2.1. Individual resilience

Individual resilience, that is, strength to vulnerability ratio (SVR), was determined by the proportion of mean standardized "My Life Today" scores (Eshel et al., 2016) and the mean standardized scores of distress symptoms (Derogatis & Savitz, 2000).This index has been successfully employed in previous studies of resilience following a war (Eshel & Kimhi, 2015), and fire hazards (Eshel, Kimshi & Goroshit, 2014, Eshel, Majdoob & Goroshit, 2014).

3.2.2. My Life Today

This 9-item scale (Eshel et al., 2016) is a revised version of the Recovery from War scale (Kimhi & Eshel, 2009; Kimhi & Shamai, 2004) which requests respondents to compare their pre- and post-adversity condition. The revised scale describes one's life today, and pertains to work, health, recreation, wider social contacts, achievements, family relations, daily functioning, relations with friends, and general assessment of one's life. The 6-point response scale ranges from 1 (Not good at all) to 6 (Very good). Example: "How is your health today?" This version of the scale was employed in measuring resilience of the Israeli Jewish population in a period of a relatively low stress, and was retained as a baseline measure in the ensuing stressful circumstances which were investigated. The scale's reliability in each of the three measurements was $\alpha = 0.91$.

3.2.3. Distress symptoms

Level of distress symptoms was determined by the Brief Symptom Inventory (BSI, Derogatis & Savitz, 2000), which pertains to anxiety, depression, and somatization symptoms. This 18-item inventory is scored on a Likert scale ranging from "not suffering at all" (1) to "suffering to very much" (5). Example: "How much do you suffer from sudden

Table 2
t-Tests comparing those who responded three times ($N = 561$) with those who dropped out ($N = 461$) on three psychological variables.

Variable	Group	Mean	S.D.	t	Cohen's d
IND-SVR	Completed	1.10	0.39	1.97[*]	−0.124
	Dropped out	1.05	0.40		
SOC	Completed	5.04	1.00	3.52[***]	−0.221
	Dropped out	4.82	1.00		
Exposure	Completed	1.38	0.53	2.34[*]	0.147
	Dropped out	1.47	0.62		

[*] $p < 0.05$.
[***] $p < 0.001$.

unexplained fear?" The scale's reliability ranged between $\alpha = 0.91$ and $\alpha = 0.93$.

3.2.4. SOC

The short SOC scale (Antonovsky, 1993) measures the participants' resilience fostering resources. Responses to this 13-item instrument were rated on a 7-point scale ranging from (1) "very seldom or never" to (7) "very often". Example: "Do you feel that the things you do daily are meaningless?" The scale's current reliabilities ranged between $\alpha = 0.85$ and $\alpha = 0.87$.

3.2.5. Social support

Social support was measured by the Multidimensional Scale of Perceived Social Support (MSPSS; Zimmet, Dahlin, Zimmet, & Farley, 1988). This scale consists of 12 items rated on a seven-point scale (1 = totally disagree, and 7 = totally agree). Example: "My friends really try to help me". Cronbach's alphas ranged between 0.95 and 0.96 across the three measurements.

3.2.6. Community resilience

Perceived community resilience was determined by a short version of the CCRAM scale (CCRAM10; Leykin et al., 2013) (e.g., "I can depend on people in my community to come to my assistance in a crisis"). Rating of its 10 items ranged from 1 = does not agree at all to 5 = totally agree. Alphas of this scale in the present study ranged between 0.91 and 0.93.

3.2.7. Level of exposure

Exposure to terror adversities was examined by a 5-item questionnaire devised by Heath, Hall, Russ, Canetti, and Hobfoll (2012), which pertains to being negatively impacted by acts of terror or war in the last year. The response scale ranged between 1 = Not affected to 5 = Affected very much. For example: "Was any member of your family

physically hurt by war/terror attack in the last year?" The average of these items determined exposure score. Previous research has found that higher exposure to adversity was associated with higher stress (Kuterovac-Jagodić, 2003; Shamai & Kimhi, 2007). The present Alphas ranged between 0.66 and 0.73.

3.2.8. Sense of danger

The sense of danger scale (Solomon & Prager, 1992) pertaining to postwar perceived personal, familial, and national danger was employed (e.g., "To what extent do you feel that your life is in danger?"). This six-item instrument was rated on a Likert-like scale ranging from 1 ("not at all") to 5 ("very much"). The scale's reliabilities were between 0.80 and 0.82.

4. Results

Pearson correlation matrix computed between the predictors and the predicted variables in each of the three repeated measurements indicates a consistent pattern in which resilience supporting factors (SOC, social support, and perceived community resilience) correlate positively with IND-SVR and My Life Today, and negatively with BSI. An inverse direction of correlations links these measures of resilience with exposure to terror and sense of danger. These trends recurred across the three repeated measurements. Mean scores of IND-SVR and BSI did not change much under terror attacks compared to the baseline measurement, whereas responses to My Life Today were more positive in the second and third measurements.

4.1. Regression analyses

The contributions of the predicting variables to the three indices of resilience were further examined by regression analyses which controlled for the base level of each measure of resilience. These data

Table 3

Six multiple regression analyses predicting IND-SVR, My Life Today, and BSI at t2 and t3 by personality attributes at t1, controlled for baseline index of resilience.

Predictor	IND-SVR t2				IND-SVR t3			
	B	S.E.	β	t	B	S.E.	β	t
IND-SVR t1	0.50	0.032	0.51	15.88***	0.55	0.039	0.56	14.07***
SOC t1	0.14	0.011	0.34	12.28***	0.07	0.014	0.18	5.16***
Social support t1	0.05	0.011	0.12	4.48***	0.04	0.013	0.09	2.62**
CCRAM t1	0.02	0.012	0.04	1.48	0.03	0.015	0.06	2.13*
Sense of danger t1	−0.02	0.013	−0.03	−1.33	−0.01	0.016	−0.02	−0.56
Exposure t1	0.00	0.004	−0.01	−0.43	−0.00	0.004	−0.01	−0.47
R^2	0.72				0.57			
F(6554)	237.05***				122.77***			
	My Life Today t2				My Life Today t3			
My Life Today t1	0.59	0.033	0.58	18.01***	0.56	0.042	0.55	13.13***
SOC t1	0.19	0.024	0.21	7.93***	0.11	0.031	0.12	3.41***
Social support t1	0.16	0.027	0.18	5.87***	0.10	0.035	0.11	2.88**
CCRAM t1	0.05	0.027	0.04	1.75	0.09	0.035	0.08	2.67**
Sense of danger t1	0.00	0.030	0.00	0.06	0.02	0.039	0.02	0.54
Exposure t1	0.01	0.008	0.03	1.32	−0.01	0.010	−0.03	−0.91
R^2	0.71				0.51			
F(6554)	224.64***				99.08***			
	BSI t2				BSI t3			
BSI t1	0.43	0.038	0.41	11.52***	0.47	0.038	0.48	12.36***
SOC t1	−0.22	0.018	−0.40	−11.81***	−0.12	0.019	−0.22	−6.13***
Social support t1	0.02	0.017	0.15	0.50	−0.03	0.017	−0.06	−1.81
CCRAM t1	−0.01	0.020	−0.01	−0.31	−0.01	0.020	−0.01	−0.39
Sense of danger t1	0.06	0.023	0.08	2.38*	0.06	0.024	0.08	2.36*
Exposure t1	0.02	0.006	0.08	2.79**	0.01	0.006	0.04	1.32
R^2	0.57				0.49			
F(6554)	123.77***				89.17***			

* $p < 0.05$.
** $p < 0.01$.
*** $p < 0.001$.

presented in Table 3 indicate that SOC and social support at time 1 significantly contributed to the explained variance of IND-SVR at time 2 and 3 beyond the contribution of IND-SVR at time 1. SOC and social support at t1 also positively predicted My Life Today scores at t2 and t3 beyond the contribution of My Life Today at t1. CCRAM at t1 positively predicted these two measures of resilience at t3. SOC at t1 negatively predicted BSI at t2 and t3, and sense of danger at t1 positively predicted these two scores, beyond the contribution of BSI at t1. Exposure to terror at t1 positively predicted only BSI at t2.

4.2. Path models

Three path models employing structural equation modeling (Arbuckle, 2009) were used to estimate the effects of five baseline predictors (SOC, social support, perceived community resilience, exposure to terror, and sense of danger) on IND-SVR, My Life Today, and BSI scores in the second and the third phases of this longitudinal study. Note that these are saturated models in which the number of free parameters equals the number of variances. Table 4 shows that individual attributes at Time 1, controlling for each other, explained substantial percentage of the variance of IND-SVR, My Life Today, and BSI scores at time 3 (50%, 37%, and 35% respectively). Time 1 personality attributes explained even higher percentages of the variance of the three resilience indices at time 2 (59%, 54%, and 47%accordingly). These predicting variables at time 2 account for 50%, 38%, and 36% of the variance of the predicted variables at time 3 correspondingly.

Table 4 shows further that the investigated predictors which were measured before the present wave of terror, consistently predicted the three resilience indices. SOC, social support, and CCRAM *positively* predicted IND-SVR at time 3, whereas exposure to terror and sense of danger *negatively* predicted this index of resilience. The three resilience supporting factors (SOC, social support, and CCRAM) predicted My Life Today, which was not significantly predicted by the resilience suppressing variables (exposure to terror, and sense of danger). An opposite pattern of predictions was found for BSI scores. The resilience supporting variables at time 1 (excluding CCRAM) negatively predicted the level of distress symptoms at time 3, whereas the resilience suppressing variables positively predicted them.

Table 4 indicates that similar patterns characterize the predictions of resilience at time 2 by time 1 personality attributes, although CCRAM did not significantly predict IND-SVR in this case, and social support did not predict BSI. The same is true for the prediction of resilience at time 3 by time 2 personality attributes, despite the finding that in this case sense of danger did not predict IND-SVR significantly. These data generally support Hypotheses 1 and 2. Table 4 shows further that both My Life Today and BSI scores constitute valid measures of resilience. My Life Today scores are validated more strongly by social support and CCRAM, whereas the BSI is validated mainly by exposure to terror and sense of danger, as well as SOC.

5. Discussion

Block and Block (1980) have analyzed children's development in terms of the strength of their ego-resiliency, and associated it with children's dispositional negative emotionality. Additional researchers have observed that anger, fear, depression or frustration, and negative emotionality in general, may interfere with the development of ego-resilience. Children characterized by higher negative emotional reactivity are less likely to cope with stressful conditions compared with less reactive children, and they have lower a level of ego-resiliency (Taylor, Eisenberg, VanSchyndel, Eggum-Wilkens, & Spinrad, 2014). Emotional risk factors also impact young adults' resilience in the face of adversity (Shiner & Masten, 2012).

The present study claims that risk factors are not separate, independent elements which decrease resilience, but rather integral components of this resilience. Maintenance of competent functioning despite interfering emotionality is the benchmark of resilient behavior under stress (Garmezy, 1991), and understanding post-adversity adaptation requires a simultaneous comprehension of protective processes and risk elements (e.g., Masten, 2011). The present data support these contentions indicating that protective as well as risk factors are valid components of post-trauma or post-adversity resilience. Posttraumatic co-occurrence of positive and negative emotions is a common experience (Carstensen, Pasupathi, Mayr, & Nesselroade, 2000), and people are challenged by the necessity of regulating their emotional state in response to adversities. Higher levels of positive rather than negative emotions in response to stress often reflect successful emotional regulation, or stronger resilience (Campos, Frankel, & Camras, 2004). However, the IND-SVR is the only measure of resilience that we are aware of which supports these theoretical considerations by accounting concurrently for both protective factors and risk factors, and suggests a way to weigh their relative strengths.

The present longitudinal study predicts resilience throughout a continuous wave of terror attacks, by means of individual characteristics which were obtained *before* the commencement of these attacks. Baseline data of SOC, social support, and perceived community resilience, which were determined in a peaceful period of time, positively predicted IND-SVR and My Life Today in the second and third phases of the investigated wave of terror; whereas greater exposure to terror and sense of danger negatively predicted these measures of resilience. These five individual attributes inversely predicted post-adversity BSI scores, which represent the risk factors aspect of resilience. The impact of these predictors was retained to a large extent, when the level of the relevant index of resilience was controlled for.

These results concord with recent Israeli studies on predictors of resilience following war (Eshel & Kimhi, 2015, 2016a), terror attacks (Kimhi, Eshel, Lahad, & Leykin, 2016), and a natural disaster (Eshel, 2016). Personality attributes and demographic variables predict IND-SVR and its components, as well as perceived community resilience (Eshel & Kimhi, 2016b). However, these predictions were obtained by

Table 4
Three path analyses with standardized estimates for SOC, social support, perceived community resilience, exposure and sense of danger predicting IND-SVR, My Life Today and distress symptoms.

	T1 predicts T3			T1 predicts T2			T2 predicts T3		
	IND-SVR	My Life Today	BSI	IND-SVR	My Life Today	BSI	IND-SVR	My Life Today	BSI
SOC	0.47***	0.25***	−0.41***	0.53***	0.36***	−0.56***	0.38***	0.31***	−0.46***
Social support	0.27***	. 0.41***	−0.12***	0.33***	0.49***	−0.04	0.31***	0.40***	−0.09*
CCRAM	0.09**	0.12***	−0.01	0.06	0.08**	−0.01	0.13***	0.12***	−0.04
Exposure	−0.09**	−0.05	0.12***	−0.07*	0.01	0.15***	−0.18***	−0.03	0.09*
Sense of danger	−0.10**	−0.02	0.20***	−0.10***	−0.04	0.17***	−0.10**	0.02	0.16***
% of explained variance	50	37	35	59	54	47	50	38	36

* $p < 0.05$.
** $p < 0.01$.
*** $p < 0.001$.

cross-sectional research designs which leave the issue of causality open to discussion. Our longitudinal data clearly show that resilience enhancing and resilience suppressing characteristics of individuals are valid predictors of SVR measures of resilience.

An unexpected terrorist attack raises fear of future threats (Scott et al., 2012). However, acts of terror and wars are quite ordinary experiences for Israelis, almost half of whom have been directly or indirectly exposed to terrorism (Bleich, Gelkopf, Melamed, et al., 2005). Israelis are concerned about the future as much as everybody else; however, despite recurring acts of terror, many Israelis tend to behave as if they have developed a kind of protective shield which makes them believe that they will overcome future adversities as they have done in the past (Eshel, Kimhi, & Goroshit, 2014). This attitude may explain the present findings that SOC and social support seem to constitute better predictors of resilience measures than exposure to terror or sense of danger. It may also explain the finding that the associations of IND-SVR and its components with the resilience supporting and suppressing attributes remained quite stable despite the change in the intensity of the terror attacks throughout a period of ten months.

5.1. Limitations

Several potential limitations of this study should be mentioned. First, longitudinal research designs of resilience are quite rare. However, a major limitation of the present study is a lack of replication of the findings in other stressful conditions in Israel or elsewhere. A single research is not enough to determine under what conditions individual attributes and attitudes will predict measures of resilience. Second, although there is robust evidence pertaining to the validity of Internet questionnaires (Gosling et al., 2004), the current issue should be examined by other means of sampling. Third, the dropout rate of 45% of the initial sample could have compromised its representativeness. Furthermore, it appears that less resilient participants are more likely to drop out of longitudinal studies which involve responses to continuous stress. Such a selective drop out may reduce the full strength of the effect size.

5.2. Implications

Attempts at enhancing individual resilience have often been employed in treating at-risk groups (e.g., Masten, 2011). Communities which are forced to live with terror due to an intractable conflict are requested to expand these efforts. They must tend to the psychological needs of a general public which is continuously faced with direct and indirect threats to life and experiences the risk of injury. It has been argued that resilience will be improved by minimizing counterproductive beliefs, and catastrophic thinking, as well as by strengthening social relationships (Reivich, Seligman, & McBride, 2011). Individual resilience is also likely to be enhanced by increasing community and national resilience (Eshel & Kimhi, 2016a, 2016b). However, despite impressive developments in these fields (e.g., Lahad, Shacham, & Ayalon, 2013), there is still an urgent need for emerging new methods which will reduce the psychological and physical impact of continuing risk factors, and will improve the ability of the general population to cope with ongoing actual and potential security adversities.

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